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Fidelity of Response to Intervention in Texas Schools

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Abstract

Fidelity of Response to Intervention in Texas Schools

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Response to Intervention (RtI) is a framework intended to provide high quality classroom instruction, identification of students at risk of failure and tiered levels of interventions for those students. This study outlines the essential components of an RtI framework. Currently, Texas has broad guidelines about the implementation of RtI, so there is potential for much variability at the campus level. In this study, Texas elementary school principals were contacted and asked to participate in a survey about the fidelity of implementation of RtI on their campus. This study sought to answer: (1 to what degree are Texas schools implementing RtI with fidelity by incorporating the essential features into their RtI models? And (2 how do Texas schools perform with regard to the percentages of students at each tier of the RtI model? Due to a poor response rate, results from this survey are minimal. The overall results reveal that most of the schools in this study are successful in the formation multiple levels of increasing intensity and data-based decision making, while most need improvement in the percentage of students in each tier and empirically validated instruction.

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Introduction

Response to Intervention (RtI) is a service delivery model (Hall & Mahoney, 2013; Hill, King, Lemons, Partanen, 2012) designed to provide high quality classroom instruction (Artiles & Kozleski, 2010; Berkeley, Bender, Peaster & Saunders, 2009; Hill et al., 2012; Mellard, Deschler & Barth, 2004; McKenzie, 2009; Prewett, Mellard, Deshler, Allen, Alexander & Stern, 2012) to all students and to identify students at risk for academic or behavioral deficits through universal screeners and progress-monitoring (Artiles & Kozleski, 2010; Berkeley et al., 2009; Hughes & Dexter, 2011; Mellard et al., 2004; McKenzie, 2009; Saeki, Jimerson, Earhart, Hart, Renshaw, Singh et al., 2011). Teams implementing the RtI approach rely on the data gathered from universal screeners and progress-monitoring assessments to make decisions about needed interventions for specific at-risk students (Mellard et al., 2004; O'Donnell & Miller, 2011; Prewett et al., 2012; Zirkel & Thomas, 2010). If an at-risk student is determined to be "nonresponsive" to academic or behavioral strategies at the universal level, they progress through a multi-leveled system that increases with instructional intensity at each predetermined level or tier (Artiles & Kozleski, 2010; Hughes & Dexter, 2011; McKenzie, 2009; O'Donnell & Miller, 2011; Prewett et al., 2012; Saeki et al., 2011).

Since the passage of the Individuals with Disabilities Education Improvement Act (IDEIA, 2004), practitioners now have the choice to use the RtI process as a method for identifying students with learning disabilities (Berkeley et al., 2009; Fuchs & Fuchs, 2006; Hauerwas, Brown & Scott, 2013; Ysseldyke, Burns, Scholin & Parker, 2010), and many schools have implemented RtI frameworks since shortly after the law's passage (Berkeley et al., 2009). RtI is now one of the leading school reforms used to reduce the number of students over-identified with LD and to provide increased instructional

intensity and accountability in the general education classroom in all fifty states (Berkeley et al., 2009). As with the discrepancy model, states have the responsibility of creating guidelines and regulations surrounding RtI that match the federal statute in IDEIA; however, states often allow individual districts to make decisions about the structure and use of RtI (Hauerwas et al., 2013). Thus, there may be extensive differences in models between states and even districts within one state (Berkeley et al., 2009; McKenzie, 2009). Although there are potentially many variations of the RtI framework, all quality models share specific essential components such as (a) multiple levels of increasing instructional intensity, (b) high-quality classroom instruction, (c) universal screening to identify at-risk students, (d) progress-monitoring, (e) empirically validated interventions, and (f) data based decision-making (Artiles & Kozleski, 2010; Berkeley et al., 2009; Hughes & Dexter, 2011; Prewett et al., 2012; Saeki et al., 2011). The following sections describe the tiers of RtI and the essential components of an RtI model.

TIERS IN AN RTI MODEL

One of the most distinguishable features of the RtI framework is the multi-tiered system of instruction and assessment. "Tier" is used to refer "to the sequence in which interventions are introduced" (Fuchs, Fuchs & Compton, 2010, p. 23). RtI models vary greatly in the number of tiers used, but according to Berkeley et al., most states have adopted the three-tier model (Artiles & Kozleski, 2010; Berkeley et al., 2009; Fuchs & Fuchs, 2006; O'Donnell & Miller, 2011; Reschly, 2014).

The first level, or tier, of RtI has a twofold purpose. The first is to provide all students with high quality classroom instruction that is scientifically based and implemented with fidelity (Artiles & Kozleski, 2010; Klingner & Edwards, 2006; Reschly, 2014). This first tier of instruction should provide instruction sufficient for 80 to

85 percent of all students in a typical classroom to meet benchmarks (Berkeley et al., 2009; Reschly, 2014), so if large numbers of students are falling below benchmarks, the quality and fidelity of instruction and curriculum may be in question (Reschly, 2014). The second purpose of tier one is to identify students who are at-risk for falling below benchmarks in academics and behavior (Reschly, 2014). This is important because identifying struggling learners early increases the probability of remediating the learning issue (Hughes & Dexter, 2011). Identification is accomplished through the use of universal screeners and progress-monitoring.

Tier two in the RtI framework builds upon but does not replace tier one instruction (Berkeley et al., 2009). Tier two is most often formatted as a teacher-led small group generally consisting of two to five students and a tutor or teacher who provides empirically validated instruction (Fuchs et al., 2010). This level of intervention should meet the learning needs of between 10 to 15 percent of the students in a given class (Berkeley et al., 2009; Reschly, 2014); however, the process used to intervene at this tier may differ greatly between models.

The purpose of tier three is to provide long-term, high-intensity, individualized interventions to students who are not responsive in tier two (Berkeley et al., 2009; Reschly, 2014). This type of intervention employs very small group size, typically 2:1 or 1:1 student to teacher ratio, and extended teaching time to increase intensity (Fuchs et al., 2010). Tier three is designed to meet the needs of approximately one to five percent of the student population (Berkeley et al., 2009; Fuchs et al., 2010; McKenzie, 2009). Although the general purpose of the tier remains the same despite models, tier three shows more variation between states than any other tier (Berkeley et al., 2009). Some frameworks depict tier three as placement in special education (Berkeley et al., 2009; Hughes & Dexter, 2011; McKenzie, 2009); however, many frameworks use this tier as an

intensive level of RtI while special education referral is considered (Berkeley et al., 2009; McKenzie, 2009; Reschly, 2014). Some researchers believe that RtI should be a general education function and remain separate from special education until a referral is made (McKenzie, 2009). Because of these stark differences, tier three may include the continuation of tier two interventions over an expanded time line (Reschly, 2014), the trial of different interventions and strategies based on progress-monitoring results (Fuchs et al., 2010), referral to special education (Klingner & Edwards, 2006), or special education placement (Berkeley et al., 2009; Klingner & Edwards, 2006).

ESSENTIAL COMPONENTS OF RTI

High-quality Classroom Instruction

The foundation of the RtI framework is high-quality general education classroom instruction (Klingner & Edwards, 2006). If it is guaranteed that all students receive instruction that is scientifically based and implemented with high fidelity, then practitioners can be more confident that students who are identified as at-risk truly have a learning deficit rather than a lack of exposure to quality learning opportunities (Hughes & Dexter, 2011; Reschly, 2014). Therefore, low quality instruction in tier one increases the likelihood that students who, with quality instruction, would have succeeded in tier one will flood the upper tiers decreasing the effectiveness of the upper tiers (Hill et al. 2012). General educators and administrators should continually reevaluate the quality of instruction and the fidelity of its implementation in order to rule out the possibility that inadequate instruction is the reason for student "nonresponsiveness" (Klingner & Edwards, 2006).

Universal Screening to Identify Students At-risk

Universal screeners are "brief tests administered to all students to eliminate 'true negatives' [no deficits in learning or instruction] from consideration" for tier two services (Fuchs et al., 2010, p. 23). Universal screeners usually occur within the first month of school (Fuchs & Fuchs, 2006; McKenzie, 2009) and are used to determine if instruction is effective (Reschly, 2014) and to identify students potentially at-risk (Hughes & Dexter, 2011; O'Donnell & Miller, 2011). There is no definitive criteria for what constitutes "at-risk" in tier one (Hughes & Dexter, 2011); however, Fuchs and Fuchs (2006) provide two suggestions either (a) review performance on the previous year's high-stakes test and "choose a criterion, such as scores below the 25th percentile to designate risk" (p. 93), or (b) assess all students within the current school year and determine scores below a certain percentile for norm-referenced measures or performance benchmark for criterion-referenced measures as at-risk. Following the universal screener, students determined to be at-risk should receive further testing to distinguish between true and false positives (Fuchs et al., 2010). This extra step in tier one helps to prevent overextending resources in upper tiers (Fuchs et al., 2010).

Progress-monitoring

As tier one instruction continues throughout the year, student progress is monitored in order to guide instruction and identify students who are not making expected academic and/or behavioral gains (Hughes & Dexter, 2011). Progress is measured by comparing students' expected and actual rates of learning (Hughes & Dexter, 2011). Progress-monitoring should be "sufficiently frequent and sensitive to match the degree of students' needs and the intensity of the intervention" (Reschly, 2014, p. 40). Currently eight to ten weeks of tier one classroom instruction is recommended before measuring response (Artiles & Kozleski, 2010; Fuchs & Fuchs, 2006; Hughes &

Dexter, 2011). After this time period, at-risk students may be assessed for nonresponsiveness and more intensive interventions at tier two can be implemented if needed (Fuchs & Fuchs, 2006).

Progress-monitoring is a crucial element to tier two interventions. As most tier two interventions have a designated time length, frequent monitoring of student progress helps to determine student responsiveness to the intervention (Artiles & Kozleski, 2010). Currently, it is suggested that the progress in tier two be measured weekly (Ysseldyke et al., 2010). Sufficient responsiveness to the intervention results in a return to tier one only instruction, and nonresponsiveness to the intervention results in movement to tier three and a possible special education referral (Fuchs & Fuchs, 2006).

Progress-monitoring at tier three provides critical information about student responsiveness to intensive intervention that contributes to referrals and placement in special education. Because of the importance and intensity of this tier, progress-monitoring assessments should occur at least weekly, if not more frequently to ensure accurate measures of student performance (Reschly, 2014; Ysseldyke et al., 2010). Exit criteria based on expected benchmarks should also be established in non-special education tier threes so that students have the opportunity to move down the tiers when ready (Reschly, 2014).

Empirically Validated Instruction

Schools implementing the RtI framework typically follow the standard treatment protocol model, the problem-solving model or some combination of the two models when applying interventions (McKenzie, 2009). The standard treatment protocol model involves grouping students with similar areas of weakness together (Berkeley et al., 2009; Reschly, 2014) and providing them with an intervention that has been "standardized and

proven effective for students with similar difficulties for a predetermined amount of time" (Berkeley et al., 2009, p. 86). Educators implementing the standard treatment protocol model select interventions from a determined set of evidence-based strategies available to the school (Artiles & Kozleski, 2010; Berkeley et al., 2009). These strategies tend to be direct, replicable and follow a fixed time line (Artiles & Kozleski, 2010; Fuchs & Fuchs, 2006). Student responsiveness to the standardized intervention is determined through frequent progress-monitoring assessments (Artiles & Kozleski, 2010).

The problem-solving model utilizes teams of teachers, administrators, school psychologists, and parents (Berkeley et al., 2009) to make decisions about student progress within the tiers and to outline and implement interventions designed for a specific student or small group (Artiles & Kozleski, 2010; Berkeley et al., 2009). At each tier, the team works through a "problem-solving cycle" where they identify the problem (Saeki et al., 2011), define the problem (Berkeley et al., 2009; Reschly, 2014; Saeki et al., 2011), analyze causes and conditions surrounding the problem (Fuchs & Fuchs, 2006; Reschly, 2014), explore and plan an intervention (Berkeley et al., 2009; Fuchs & Fuchs, 2006; Reschly, 2014), implement the intervention (Berkeley et al., 2009; Fuchs & Fuchs, 2006; Saeki et al., 2011), monitor and evaluate student progress (Berkeley et al., 2009; Fuchs & Fuchs, 2006; Reschly, 2014), and evaluate the effectiveness of the intervention (Fuchs & Fuchs, 2006; Saeki et al., 2011). Team members need to ensure that interventions use research-based strategies and do not prevent the student from making appropriate gains in order to prevent the identification of "false positives" in special education (Fuchs & Fuchs, 2006).

Data-based Decision-making

After data on student responsiveness is collected, educators make decisions about whether to continue or discontinue interventions (Reschly, 2014). Progress-monitoring contributes to the data-based decision making that occurs throughout the RtI framework. If a student has reached benchmarks, educators may recommend discontinuing interventions at the highest tiers to implement less intensive interventions (McKenzie, 2009; Reschly, 2014). If a student is making progress towards benchmarks, but has yet to meet them, educators may recommend continuing current interventions to allow the student time to reach the benchmark objective (Reschly, 2014). If a student does not seem to be making progress towards benchmark goals and interventions have been modified multiple times in an effort to improve student ability, educators may recommend beginning next level interventions as appropriate (McKenzie, 2009; Reschly, 2014).

RATIONALE AND PURPOSE

It is not sufficient for schools to simply "adopt" the RtI framework (Reschly, 2014). Instruction and interventions must be implemented with fidelity if RtI is to have an impact on student learning (Berkeley et al., 2009; Reschly, 2014). This means that the RtI framework and all interventions used should be implemented in the way that they were intended and validated for, and when repeated, should look the same each time. This helps to confirm a relationship between the intervention and student outcomes (Hill et al., 2012).

With fidelity as the cornerstone of intervention implementation, RtI has the potential to provide students with high-quality interventions that can make a difference in learning outcomes. Multiple researchers have investigated what state education departments have set in place in regards to the implementation of RtI in public schools (Berkley et al., 2009; Zirkel & Thomas, 2010). Researchers have also investigated how

state education departments use RtI to assist in the identification of LD (Hauerwas et al., 2013); however, there is still a lack of research in the area of how well schools are implementing this framework. This research seeks to extend previous research at the state level and evaluate the degree to which Texas educators implement RtI with fidelity at Texas elementary schools.

The Texas Education Agency permits Texas schools to make a majority of the decisions surrounding the implementation of RtI. Currently, Texas RtI guidelines recommend high quality, research based instruction in general education, the utilization of universal screeners for academics and behavior and the application of fidelity measures (Zirkel & Thomas, 2010). The guidelines also recommend that RtI models use multiple tiers of increasing intensity when implementing interventions (Zirkel & Thomas, 2010). Tier one in Texas schools should equal or surpass 90 minutes of instruction per day with universal screening occurring at least three times per school year (Zirkel & Thomas, 2010). Tier two interventions should occur for 20 to 30 minutes per day in addition to tier one instruction with progress-monitoring occurring weekly (Zirkel & Thomas, 2010). Tier three should include an additional 50 minutes of intervention per day with weekly progress-monitoring (Zirkel & Thomas, 2010). There are currently no regulations on the duration of interventions in Texas (Zirkel & Thomas, 2010). After these recommendations have been met, Texas school districts are responsible for identifying criteria for responsiveness and data collection specifics (Hauerwas et al, 2013). Thus, there is the potential for significant variability between school campuses. The purpose of this study was to identify the degree to which RtI is being used as conceptualized in Texas public schools. The following research questions guided this study:

1. To what degree are Texas schools implementing RtI with fidelity by incorporating the essential features into their RtI models?
2. How do Texas schools perform with regard to the percentages of students served at each tier of the RtI model?

METHOD

Participants

Purposive sampling was used to identify participants for this study (Cozby, 2009), which means that participants were selected based on predetermined criteria (Cozby, 2009). The criterion for this study was consistent implementation of response to intervention in a Texas public elementary school. The names of schools and their principals are publicly available through the Texas Education Agency website. Random selection was completed using a numbered list of Texas schools and a random number table. At the school level, principals from 200 randomly selected schools were contacted through email with a link to the study's survey. These two hundred principals also received a follow-up invitation to complete the online survey. One hundred of these identified principals also received a follow-up paper version of the survey in order to ensure maximum participation. This study had a low response rate with only 15 total participants; five participants completed the survey in its entirety, two answered some questions, and eight partial participants indicated that they had an RtI model in place but did not provide any data towards the research questions, so their data was excluded. The data from participants who partially participated (n = 2) were included when reporting item level information; however, due to their incomplete data set their fidelity scores are not reported for the broader essential components of RtI. School principals who indicated that their schools were not implementing RtI were exited from the survey.

Research Design

This study followed a survey design. A survey was chosen in order to reach a large number of participants and as a means to gather a relatively large amount of information about many different schools succinctly. The results from a survey provide a way to study relationships among variables (Cozby, 2009), which in this study were level of incorporation of the essential features into campus RtI models and average number of students in each tier.

Instrumentation

A 45-item survey was created to gather information about the RtI practices of Texas schools. The survey was adapted from the "RtI Essential Components Integrity Worksheet" (National Center on Response to Intervention, 2011). Question types included multiple choice, open ended, Likert, and sliding scales that corresponded with a modified version of the "RtI Essential Components Integrity Rubric" (National Center on RtI, 2011). The survey was developed and electronically sent out through a system called Qualtrics. Qualtrics runs on the University of Texas College of Education secure server and provides a secure and efficient method for delivering the survey to participants and for data storage. Paper surveys asked all of the same questions and were sent to participants at their school addresses. They included a pre-stamped return envelope for the participant's response. The total time needed to complete the survey was 45 minutes or less.

The survey was divided into seven sections. The first section asked for basic information about the school, such as number of students attending, number of years implementing RtI and the percent of the student population in each tier of the school's RtI framework on May 1, 2014. Participants were asked if RtI was implemented on their campus at all or for specific amounts of time, such as 0-2 years 11 months, 3-4 years 11

months and 5 or more years. If participants indicated that RtI was not implemented, they were exited from the survey. The second section asked questions about universal screening procedures and screening tools (National Center on RtI, 2011). The third section asked questions regarding primary prevention or tier one. Topics under this section included the use of research-based curriculum materials, fidelity measures, instructional strategies and professional development (National Center on RtI, 2011). The fourth section asked questions about the secondary prevention level or tier two. Topics under this section included the use of evidence based interventions, alignment between tier one and tier two, fidelity measures, instructional strategies, determining responsiveness and the use of tier two as a supplement to tier one rather than a replacement (National Center on RtI, 2011). The fifth section discussed the tertiary level of RtI or tier three. Questions asked in this section surrounded evidence-based interventions, fidelity measures, instructional strategies, responsiveness and the relationship of tier three to tier one (National Center on RtI, 2011). The sixth section of the survey concerned progress-monitoring procedures. Topics in this section included tools used and how progress is monitored (National Center on RtI, 2011). The seventh section asked questions regarding data-based decision-making processes (National Center on RtI, 2011). Items in each section correspond to essential features of RtI. One additional question was asked which was not based on the "RtI Essential Components Integrity Worksheet." This question referred to the percentages of students served in each tier: tier one, tier two, and tier three on May 1, 2014. This date was selected because it was the last full month of instruction of the school year prior to the initiation of this study.

Procedures

A list of all Texas elementary school principals and their corresponding schools was used to contact principals via email and postal service in order to request participation in the study. Once questionnaire submissions were returned, they were scored to calculate an RtI fidelity rating. This rating was compared to the percent of population in the school's RtI tiers.

Data analysis

Qualtrics allows researchers to download an Excel file containing the survey responses received from the electronic survey administration. The researcher collected mailed survey responses. The data were added to the Excel file containing data gathered through the electronically administered survey.

To score the survey, the researcher used a rubric adapted from the RtI Fidelity of Implementation Rubric (National Center on RtI, 2011). The rubric is divided into six sections. Each section of the rubric provides information about what practices would indicate a 1, 3 or 5 for each of the six essential components of RtI outlined above. The first component was multiple levels of increasing instructional intensity. Indicators under this component include complimentary tier two and core instruction, the instructional characteristics of tier two and tier three, addition and not replacement of instruction in tier two, individualized tier three interventions, and the relationship of tier three and core instruction (National Center on RtI, 2011). A score of one for complimentary tier two and core instruction meant that the implementation of this component was poor (e.g., tier two intervention was poorly aligned with core instruction.), a score of three indicated mediocre implementation (e.g., tier two intervention incorporated foundational skills, but these only occasionally aligned with core instruction), and a score of five indicated

exceptional implementation (e.g., tier two intervention was well aligned with core instruction).

A score of one for the instructional characteristics of tier two meant that the implementation of this component was poor (e.g., one or none of the following conditions were met: (1) interventions were standardized; (2) tier two interventions were led by staff trained in the intervention according to developer.), a score of three indicated mediocre implementation (e.g., two of the conditions were met), and a score of five indicated exceptional implementation (e.g., all three conditions were met) (National Center on RtI, 2011). A score of one for the instructional characteristics of tier three meant that the implementation of this component was poor (e.g., none of the following conditions were met: (1) the intervention was individualized; (2) tier three interventions were led by well-trained staff; and (3) the group size was optimal (according to research) for the age and needs of students.), a score of three indicated mediocre implementation (e.g., only one of the conditions were met), and a score of five indicated exceptional implementation (e.g., all conditions were met) (National Center on RtI, 2011).

A score of one for addition and not replacement of instruction in tier two meant that the implementation of this component was poor (e.g., tier two interventions replaced core instruction), a score of three indicated mediocre implementation (e.g., tier two interventions sometimes supplemented core instruction and sometimes replaced core instruction), and a score of five indicated exceptional implementation (e.g., tier two interventions supplemented core instruction) (National Center on RtI, 2011).

A score of one for individualized tier three interventions meant that the implementation of this component was poor (e.g., tier three interventions were not more intensive than tier two interventions), a score of three indicated mediocre implementation (e.g., tier three interventions were more intensive than tier two interventions but not

individualized to student need), and a score of five indicated exceptional implementation (e.g., tier three interventions were more intensive than tier two interventions and were adapted to address individual student needs based on student data) (National Center on RtI, 2011).

A score of one for the relationship of tier three and core instruction meant that the implementation of this component was poor (e.g., neither of the following conditions were met: (1) decisions regarding student participation in both core instruction and tier three intervention were made on a case-by-case basis, according to student need; and (2) tier three interventions were aligned to the specific skill needs of students to help them make progress toward core curriculum standards), a score of three indicated mediocre implementation (e.g., only one of the conditions was met), and a score of five indicated exceptional implementation (e.g., both of the conditions were met).

The second component was high-quality classroom instruction. Indicators under this component include the articulation of teaching and learning (in and across grade levels) in tier one and differentiated instruction in tier one (National Center on RtI, 2011). A score of one for the articulation of teaching and learning (in and across grade levels) in tier one meant that the implementation of this component was poor (e.g., teaching and learning were poorly articulated within grade levels so that students did not have highly similar experiences, regardless of their assigned teacher), a score of three indicated mediocre implementation (e.g., teaching and learning were well articulated within grade levels so that students had highly similar experiences, regardless of their assigned teacher; however, procedures were not in place to monitor fidelity), and a score of five indicated exceptional implementation (e.g., teaching and learning were well articulated within grade levels so that students had highly similar experiences, regardless of their

assigned teacher, and procedures were in place to monitor the fidelity of this teaching) (National Center on RtI, 2011).

A score of one for differentiated instruction in tier one meant that the implementation of this component was poor (e.g., no explanation of how most teachers in the school used student data, knowledge of student readiness, language and culture to identify and address the needs of individual students.), a score of three indicated mediocre implementation (e.g., some explanation of how most teachers in the school used student data, knowledge of student readiness, language or culture to identify and address the needs of individual students.), and a score of five indicated exceptional implementation (e.g., evidence that most teachers in the school used student data, knowledge of student readiness, language and culture to identify and address the needs of individual students) (National Center on RtI, 2011).

The third component was universal screening to identify at-risk students. Indicators under this component include screening tools and procedures (National Center on RtI, 2011). A score of one for screening tools meant that the implementation of this component was poor (e.g., insufficient evidence that the screening tools were reliable or accurate), a score of three indicated mediocre implementation (e.g., evidence indicated that the screening tools were reliable and accurate, but staff did not consider them with great importance), and a score of five indicated exceptional implementation (e.g., evidence indicated that the screening tools were reliable and accurate, and staff considered them with great importance).

A score of one for the universal screening process meant that the implementation of this component was poor (e.g., none of the following conditions were met: (1) screening was conducted for all students; (2) procedures were in place to ensure implementation accuracy (i.e., all students were tested, scores were accurate, cut

points/decisions were accurate)), a score of three indicated mediocre implementation (e.g., only one of the conditions was met), and a score of five indicated exceptional implementation (e.g., both conditions were met).

The fourth component was progress-monitoring. Indicators under this component include progress-monitoring tools and process (National Center on RtI, 2011). A score of one for progress-monitoring tools meant that the implementation of this component was poor (e.g., selected progress-monitoring tools met no more than one of the following criteria: (1) progress was monitored at recommended intervals based on intervention level; (2) specified minimum acceptable growth; (3) reliability and validity information was considered with importance), a score of three indicated mediocre implementation (e.g., two of the conditions were met), and a score of five indicated exceptional implementation (e.g., all conditions were met) (National Center on RtI, 2011).

A score of one for the progress-monitoring process meant that the implementation of this component was poor (e.g., neither of the following conditions were met: (1) progress-monitoring occurred weekly for students receiving tier two intervention and at least weekly for students receiving tier three intervention; and (2) procedures were in place to ensure implementation accuracy), a score of three indicated mediocre implementation (e.g., one of the conditions was met), and a score of five indicated exceptional implementation (e.g., both of the conditions were met).

The fifth component was empirically validated instruction. Indicators under this component included evidenced based interventions in tier two and tier three (National Center on RtI, 2011). A score of one for evidenced based interventions in tier two meant that the implementation of this component was poor (e.g., tier two interventions were not evidence based in content areas and grade levels where they were available and had not shown positive impact for student achievement), a score of three indicated mediocre

implementation (e.g., some tier two interventions were evidence based in content areas and grade levels where they were available and had shown positive impact for student achievement), and a score of five indicated exceptional implementation (e.g., all tier two interventions were evidence based in content areas and grade levels where they were available and had shown positive impact for student achievement) (National Center on RtI, 2011).

A score of one for evidence based interventions in tier three meant that the implementation of this component was poor (e.g., tier three interventions were not evidence based in content areas and grade levels where they were available), a score of three indicated mediocre implementation (e.g., some tier three interventions were evidence based in content areas and grade levels where they were available), and a score of five indicated exceptional implementation (e.g., all tier three interventions were evidence based in content areas and grade levels where they were available).

The sixth component was data-based decision-making. Indicators under this component include the data-based decision-making process and the responsiveness to tier two and tier three interventions (National Center on RtI, 2011). A score of one for the data-based decision-making process meant that the implementation of this component was poor (e.g., the mechanism for making decisions about the participation of students in the instruction/intervention levels met no more than one of the following criteria: the process (1) was data-driven and based on validated methods; (2) involved a broad base of stakeholders; and (3) was operationalized with clear, established decision rules (e.g., movement between levels or tiers, determination of appropriate instruction or interventions)), a score of three indicated mediocre implementation (e.g., two of the conditions were met), and a score of five indicated exceptional implementation (e.g., all of the conditions were met).

A score of one for the responsiveness to tier two and tier three intervention meant that the implementation of this component was poor (e.g., neither of the following conditions were met: (1) decisions about responsiveness to intervention were based on reliable and valid progress-monitoring data and (2) these decision-making criteria were implemented accurately), a score of three indicated mediocre implementation (e.g., only one condition was met), and a score of five indicated exceptional implementation (e.g., both conditions were met) (National Center on RtI, 2011).

Information provided by school principals that matches the descriptions given for 1, 3, or 5 on the rubric would receive the corresponding score. If information given by a principal for an item appeared to score above a score of three and below a score of five, the researcher assigned a score of four. A score of two was assigned following the same method as that for a score of four. Responses to the question about the percentage of students served in each tier were scored as follows: a score of one was assigned if only one of the percentages were within the ranges for each tier recommended by the National Center on RtI. A score of three was assigned if two of the percentages were within the ranges for each tier recommended by the National Center on RtI. A score of five was assigned if all three percentages were within the ranges for each tier as recommended by the National Center on RtI.

A second trained scorer also scored all survey items for each participant. The scores given by the second scorer were compared to the scores given by the first scorer. The scores assigned by each scorer were used to calculate reliability. Reliability was calculated by dividing the lower fidelity score for each participant by the higher fidelity score for each participant. Reliability ranged from 88% to 100% with a mean of 95.6%. Table 2 provides a summary of these reliability data.

After scoring each item, the items pertaining to each essential feature were summed and a mean score was calculated. Means and ranges are provided in the results section as an indicator of schools' performances on each of the essential components of RtI. A trained secondary rater was used to improve the accuracy of the fidelity scores. The researcher intended to calculate a correlation coefficient to determine the relationship between the fidelity of implementation score and percentage of students served in in each tier; however, the low response rate prevented this. Results are descriptively reported.

Results

Results of data collection show that the average enrollment size of the participants' campuses was 335 students on May 1, 2014. Twenty-nine percent of the respondents had been implementing RtI for five or more years, 43% percent of respondents had been implementing for three years to four years eleven months, and 29% of participants had been implementing RtI from zero years to two years eleven months. Limited demographic data was reported; however, data collection shows that several participants were from the Dallas-Fort Worth, Bryan-College Station, El Paso, Kimble County and Tyler areas. The participating schools ranged from rural towns, suburban cities to large urban centers. The remaining sections report the results as they apply to the six essential components of RtI as presented in this study.

MULTIPLE LEVELS OF INCREASING INSTRUCTIONAL INTENSITY AND EMPIRICALLY VALIDATED INSTRUCTION

When asked if research has shown that tier two interventions positively impact student achievement, 50% of respondents chose yes, 33% indicated that they were unsure and 17% indicated that the interventions did not positively impact student achievement. When asked how the instructors of tier two intervention ensure that the content is well aligned and complements the core instruction, 50% of respondents indicated that other methods such as the use of curriculum maps, scaffolding planning and campus collaboration ensure that the content in tier two is aligned with and compliments the core instruction, 33% of respondents indicated that RtI meetings ensure this, and 33% of respondents indicated that the Texas Essential Knowledge and Skills standards ensure this. Eighty-three percent of respondents indicated that procedures are in place to monitor the fidelity of implementation of the tier two interventions, while 17% of respondents

indicated that there are no procedures in place. Tier two intervention was provided by the general education teacher in 67% of responses, another specialist in 50% of responses, and special education teachers or paraprofessionals in 17% of responses. All respondents indicated that tier two services providers were adequately trained to provide the intervention. Eighty-three percent of respondents indicated that tier two always occurs in a small group; while 17% of respondents indicated that tier two interventions do not always occur in a small group. Eighty-three percent of respondents indicated that these small groups serve 3-5 students, while 17% of respondents indicated that the groups typically serve 8-10 students. All respondents indicated that decisions about tier two student progress are based on progress-monitoring data. Half of respondents indicated that criteria for determining responsiveness are determined with accuracy, and half were unsure. Sixty-seven percent of respondents indicated that criteria for determining responsiveness are determined with consistency, and 33% of respondents were unsure. Eighty-three percent of respondents indicated that tier two is always implemented as a supplement to tier one; however, 17% of respondents were unsure.

All respondents indicated that tier three was more intense than tier two, and all respondents indicated that there were procedures in place to monitor the fidelity of implementation of tier three interventions. When asked how the use of evidence-based instructional practices is ensured in tier three interventions, 60% of respondents monitored the program, 40% of respondents used observation and feedback or lesson plan checks, and 20% used either vendor assurance, special education cooperative evaluations collaborative planning, training of expectations or notes towards specific goals. General education teachers, other specialists or special education teachers implemented tier three interventions in 50% of responses, and paraprofessionals implemented in 17% of responses. Eighty-three percent of respondents indicated that

these tier three service providers were adequately trained, and 17% were unsure. All respondents indicated that group size allows for the interventionist to adjust and individualize instruction to address the needs of each student. Maximum tier three group size was 2-3 students in 83% of responses and 4-6 students in 17% of responses. All respondents indicated that decisions about student response to tier three interventions were based on progress-monitoring data. Criteria for determining responsiveness to tier three was frequently implemented with accuracy in 67% of responses and occasionally in 33% of responses. Criteria for determining responsiveness to tier three was frequently implemented with consistency in 83% of responses and occasionally in 17% of responses. Tier three interventions were always implemented as a supplement to the core curriculum in 50% of responses, and tier three interventions sometimes replace the core curriculum for students in 50% of responses. When asked how the decision to keep or remove a student receiving tier three intervention from tier one core instruction, 40% of respondents indicated that tier one is mandatory, 40% indicated that teacher observations were used, 20% indicated that student progress and responsiveness was used, and 20% indicated that the student's IEP was used. The average fidelity score for multiple levels of increasing intensity was 4.2. Scores ranged from 4 to 5. The average fidelity score for empirically validated instruction was 3.2. Scores ranged from 1 to 5.

HIGH-QUALITY CLASSROOM INSTRUCTION

All of participants responded that fidelity of the core instruction is monitored through classroom observations. Seventy one percent of participants responded that fidelity of the core instruction is monitored through lesson plan checks. Forty-three percent of participants indicated that fidelity of the core instruction is monitored through teacher collaboration time, and 14% of participants indicated that fidelity of the core

instruction is monitored through teacher surveys. A somewhat consistent learning experience among students in the same grade with different teachers was indicated by 57% of participants, while a very consistent learning experience was indicated by 43% of participants.

Assessment data was often used to offer different teaching and learning strategies in 57% of responses, and student assessment data was sometimes used to offer different teaching and learning strategies in 29% of responses. Seventy-one percent of respondents indicated that knowledge of student readiness is often used to offer different teaching and learning strategies, and 14% of participants indicated that knowledge of student readiness is used either all of the time or sometimes to offer different teaching and learning strategies. Forty-three percent of respondents indicated that knowledge of student language and language skills is used all of the time to offer different teaching and learning strategies, and 43% of respondents indicated that knowledge of student language and language skills is used often to offer different teaching and learning strategies. Finally, 14% of respondents indicated that knowledge of student language and language skills is rarely used to offer different teaching and learning strategies. Forty-three percent of respondents indicated that knowledge of student culture is sometimes used to offer different teaching and learning strategies, while 29% of respondents indicated that knowledge of student culture is rarely used or often used to offer different teaching and learning strategies. Thirty-three percent of participants responded that no effort had been made to ensure that all instruction takes into account cultural, linguistic, and socioeconomic factors for students, while 17% responded that there were ineffective efforts, 17% responded that there were neither effective nor ineffective efforts, 17% responded that there were somewhat effective efforts, and 17% responded that there were

effective efforts. The average fidelity score for high quality classroom instruction was 3.8. Scores ranged from 3 to 5.

UNIVERSAL SCREENING TO IDENTIFY AT-RISK STUDENTS

The most commonly used tools for universal screening purposes were Istation, which was used by 71% of participants, Aimsweb, which was used by 29% of participants, DRA, which was used by 29% of participants, and ISTEEP, which was used by 9% of participants. Other tools used were Journeys, Moby Max, Star Math, Star Reading, TPRI, Tejas Lee K-2, AMI K-2 Common assessments, STAAR results, district assessments, and teacher-made tools. Fifty-seven percent of respondents stated that the validity, reliability, and accuracy of the screening tools were considered with great importance, while forty three percent of respondents stated that validity, reliability and accuracy were somewhat considered. All participants stated that every student was screened at the beginning of the school year. The majority of participants based the beginning of the year universal screener on district benchmarks (29% of participants) or on other measures such as state screening measures, ISTEEP, Istation and Aimsweb (43% of participants). All participants indicated that universal screeners occur throughout the school year. The average fidelity score for universal screening was 3.8. Scores ranged from 2 to 5.

PROGRESS-MONITORING

Forty percent of participants shared that progress-monitoring tools included ISTEEP, Moby Max, Istation, or teacher-made probes. Twenty percent used Aimsweb, Imagine learning, Study Island, Read Right assessments, EasyCBM, Curriculum probes, Star Math, Star Reading, Senderos, or Journeys. When asked how much attention was paid to the evidence from the vendor regarding the validity, reliability, and accuracy of

the progress-monitoring tools, 67% of respondents indicated that it was considered with great importance, and 17% indicated that it was somewhat considered or not considered. When asked if progress-monitoring tools were validated for the school population, 50% of respondents indicated yes, and 50% indicated unsure. 100% of respondents indicated that progress-monitoring tools provided benchmarks for acceptable growth. Tier two progress was monitored 1-2 times per week in 50% of responses, 2-3 times per month in 33% of responses and once per month in 17% of responses. Tier three progress was monitored 1-2 times per week in 83% of responses, and 2-3 times per month in 17% of responses. When asked if progress-monitoring measures were administered according to developer guidelines, 50% of respondents indicated always, 33% indicated most of the time, and 17% indicated sometimes. The average fidelity score for progress-monitoring was 3.6. Scores ranged from 2 to 5.

DATA-BASED DECISION MAKING

When asked who was involved in the RtI decision-making process, all respondents indicated general education teacher and administrator involvement, 83% indicated other specialist involvement, 67% indicated special education teacher involvement, and 50% indicated parent involvement. When asked what data was used to inform RtI decisions and to what extent, 67% of respondents indicated that progress-monitoring is extremely important and 33% indicated it is very important. Current tier progress was indicated as extremely important in 50% of responses, very important in 33% of responses, and somewhat important in 17% of responses. Universal screeners were indicated as extremely important in 67% of responses, very important in 33% of responses, and neither important nor unimportant (neutral) in 17% of responses. Student classroom grade was indicated as somewhat important in 83% of responses and very

important in 17% of responses. STAAR scores were indicated as somewhat important in all responses. Classroom observations were indicated as very important in 33% of responses and somewhat important in 67% of responses. Teacher or specialist opinion was indicated as very important in 83% of responses and somewhat important in 17% of responses. Parent opinion was indicated as very important in half of responses and somewhat important in half of responses. When asked to what extent the screening, progress-monitoring and other assessment data informed instruction at all levels, 33% of respondents indicated all of the time, 33% of respondents indicated often, and 33% of respondents indicated sometimes. Finally, when asked to agree with the statement "consistent decision-making rules are used with all students," 67% of respondents agreed, 17% strongly agreed, and 17% neither agreed nor disagreed. The average fidelity score for data-based decision making was 4.4. Scores ranged from 4 to 5.

TIERS IN AN RTI MODEL

The average number of students in the general education, or tier one only, was 220 students. This proportion to average enrollment is 46% of the population. Sixteen percent of participants had tier one populations matching the proposed 80 to 85% of students served (Berkeley et al., 2009; Reschly, 2014). The average number of students served in tier two was 50.5 students. This proportion to the average enrollment size is 10%. Thirty-three percent of participants had tier two populations matching the proposed 10-15% of students served (Berkeley et al., 2009; Reschly, 2014). The average number of students served in tier three was 16.5 students. This proportion to the average enrollment size was 3%. Fifty percent of participants had tier three populations that matched that proposed one to five percent of students served (Berkeley et al., 2009; Fuchs et al., 2010; McKenzie, 2009). The average number of students served in special education was 22

students. This proportion to the average enrollment size was 5%. The average fidelity score for percentage in each tier was 1.6. Scores ranged from 0 to 5.

Fidelity scores for the five fully completed surveys are broken down by RtI essential components and are located in table 1 below. Multiple levels of increasing instructional intensity is represented by EC 1, High-quality classroom instruction is represented by EC 2, Universal screening to identify at-risk students is represented by EC 3, Progress-monitoring is represented by EC 4, Empirically validated instruction is represented by EC 5, Data-based decision-making is represented by EC 6, and percentage of students in each tier is represented by tier %. Scores ranged from 2.7-4.7 on a five-point scale.

Table 1

Fidelity Scores

Essential Component	Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Average Score
EC 1	5	4	4	4	4	4.2
EC 2	4	4	5	3	3	3.8
EC 3	4	2	4	4	5	3.8
EC 4	4	2	5	4	3	3.6
EC 5	5	2	5	1	3	3.2
EC 6	5	4	5	4	4	4.4
Tier %	0	1	5	1	1	1.6
Fidelity score	3.9	2.7	4.7	3	3.3	

Table 2

Inter-rater Reliability Scores

EC	Participant 1		Participant 2		Participant 3		Participant 4		Participant 5	
	Rater 1	Rater 2	Rater 1	Rater 2	Rater 1	Rater 2	Rater 1	Rater 2	Rater 1	Rater 2
EC 1	5	5	4	4	4	5	4	5	4	4
EC 2	4	5	4	5	5	5	3	3	3	4
EC 3	4	5	2	4	4	4	4	3	5	4
EC 4	4	3	2	2	5	5	4	4	3	2
EC 5	5	4	2	1	5	4	1	2	3	3
EC 6	5	5	4	4	5	5	4	3	4	3
Tier %	0	0	1	1	5	5	1	1	1	0
Fidelity Score	3.9	3.9	2.7	3	4.7	4.7	3	3	3.3	2.9
Reliability Score	100%		90%		100%		100%		88%	

Discussion

Based on the results of the study, it can be seen that these elementary schools in Texas implement the RtI framework in different ways; however, the majority of schools addressed all components of the RtI framework. The overall results reveal that most of the schools in this study are successful in the formation of multiple levels of increasing intensity and data-based decision making, while most need improvement in the percentage of students in each tier and empirically validated instruction.

MULTIPLE LEVELS OF INCREASING INSTRUCTIONAL INTENSITY AND EMPIRICALLY VALIDATED INSTRUCTION

Strong core instruction that is scientifically proven and delivered with fidelity helps members of the RtI team identify true patterns of weakness without questioning whether lack of instruction contributed (Hughes & Dexter, 2011; Reschly, 2014). All participants responded that fidelity of the core instruction was monitored through classroom observations. Participants also monitored fidelity of the core instruction through lesson plan checks, teacher collaboration time and teacher surveys. Klingner & Edwards (2006) suggest that tier one instruction should be reevaluated frequently in ensure quality instruction, and these Texas elementary schools reevaluate the effectiveness of tier one instruction with at least one method if not more than one. This shows some level of commitment to fidelity of core instruction.

Tier two should compliment and not replace tier one core instruction (Berkeley et al., 2009). Respondents, who were unsure whether tier two supplemented tier one, should conduct fidelity checks with the teachers or tutors who provide these interventions in order to confirm that best practice is occurring in the classroom. Respondents indicated that curriculum maps, scaffolding planning, campus collaboration, RtI meetings, and the

Texas Essential Knowledge and Skills standards were used to ensure complimentary tier two practices. Components of the problem-solving RtI model are clearly utilized by these schools through the use of scaffolding planning, collaboration with stakeholders and RtI meetings. This use of team decision-making is an essential piece of the "problem-solving cycle" outlined earlier in the empirically validated instruction section (Saeki et al., 2011). Based on the survey questions and the structure of the RtI models presented in this research, participants in this study incorporate pieces of both the standard treatment protocol model and the problem-solving model.

The typical tier two model follows a small-group format with between two and five students and a trained tutor or teacher who provides the empirically validated intervention (Berkeley et al., 2009, Fuchs et al., 2010). In this study, the general education teacher, another specialist, special education teacher or paraprofessional provided tier two interventions, and all service providers were adequately trained to provide the intervention. These individuals are common stakeholders in the problem-solving model (Berkeley et al., 2009), and their training in delivering the intervention promotes fidelity of implementation. Also, the majority of respondents reported that tier two occurs in a small group. Of those small groups, the majority of respondents indicated that those small groups serve three to five students. These results match the proposed components for tier two interventions outlined in this study.

Half of respondents indicated that tier two interventions positively impacted student achievement. This may indicate that evidence-based intervention practices and strategies are in place and successfully allow students to make gains before the need for more intensive interventions or special education referrals is required (Fuchs & Fuchs, 2006). This is further supported because 83% of participants indicated that they have fidelity checks in place for tier two, and therefore they would be sensitive to student

nonresponse and would be able to address the specific need more quickly. An unsure response indicates that the participant is not knowledgeable about the impact of tier two interventions on student success.

It is critically important for tier two interventions to determine responsiveness with accuracy and consistency if decisions about student progress are based off of the intervention. The standard treatment protocol model encourages high levels of accuracy and consistency (Berkeley et a., 2009). These strategies follow a specific predetermined intervention and timeline (Artiles & Kozleski, 2010; Berkeley et al., 2009). Participants' inability to determine responsiveness suggested that they could not confidently attribute student response or nonresponse to the intervention.

Tier three should contain highly individualized and intense interventions for students who are not responding to tier two interventions, who are in special education, or who are currently being referred for special education (Berkeley et al., 2009; Hughes & Dexter, 2011; McKenzie, 2009; Reschly, 2014). Tier three interventions can be deemed as more intense if they occur in a smaller group size, such as a 2:1 or 1:1 student-teacher ratio, increase in duration, such as Texas Education Agency's recommendation for 50-minute sessions in tier three (Zirkel & Thomas, 2010), or occur over a longer set of weeks than tier two (Reschly, 2014). In this study, all respondents indicated that tier three is more intense than tier two, however, the types of intensity other than group size were not reported. None of the participants met the proposed group size of one to two students. Interestingly, all respondents indicated that group size allowed for the interventionist to adjust and individualize instruction to address the needs of each student, even though the majority group size was larger than research recommends (Fuchs et al., 2010). This might indicate that the interventions were intensified in other ways such as length of session or duration of weeks.

Tier three may replace the core curriculum in tier one, but this decision should be made on an individual basis to best teach the student (National Center on Response to Intervention, 2011). In this study, half of participants indicated that tier three interventions were always implemented as a supplement to the core curriculum, and half of participants indicated that tier three interventions sometimes replace the core curriculum for students. When asked about the decision-making process to keep or remove a student receiving tier three intervention from tier one core instruction, several participants noted that their school's tier three intervention is in addition, which complements with Texas Education Agency's recommendation of 50 minutes of intervention in addition to the core (Zirkel & Thomas 2010). The finding that teacher observations were used, could indicate that teacher input about student progress is highly valued; however it could also mean that students who are not yet identified as having a disability are removed from a significant portion of core instruction. Participants who indicated that data was used for the decision to remove a nondisabled child from the core curriculum suggested that teams made decisions based on individual need. Lastly, if the student's IEP was used to determine removal from tier one, it can be suggested that the campus considers students served under special education as also a part of tier three.

All respondents indicated that there are procedures in place to monitor the fidelity of implementation of tier three interventions. These results indicate that these schools are successful in creating a system of RtI that contains levels of increasing intensity. To ensure the use of evidence-based instructional practices in tier three interventions respondents monitored the program, used observation and feedback or lesson plan checks, vendor assurance, special education cooperative evaluations, collaborative planning, and training regarding expectations regarding specific goals. These results

suggest that these Texas elementary schools have procedures in place to monitor the fidelity of tier three interventions (National Center on Response to Intervention, 2011).

Criteria for determining responsiveness at tier three are extremely important because the data collected during the intervention contributes to student movement back down to tier two, possible referral for a disability if deemed nonresponsive, official data collection in the special education referral or special education progress-monitoring (Fuchs & Fuchs, 2006). This study identified a lack of consensus concerning accuracy and consistency of tier three interventions.

HIGH-QUALITY CLASSROOM INSTRUCTION

Strong core instruction is the basis of any successful RtI model (Klingner & Edwards, 2006). Two important markers of quality tier one instruction are good delivery of teaching to guarantee similar learning experiences between all students in a grade level and differentiated instruction in order to support students below benchmarks. In the present study, participants either noted a very consistent learning experience or a somewhat consistent learning experience. A campus where all students receive quality instruction and similar learning experiences can more easily and accurately measure student growth on universal screeners and assessments because all standards for teaching and learning are the same.

In this study, differentiated instruction refers to the use of student data, knowledge of student readiness, language, and culture to identify and address the needs of individual students (National Center on Response to Intervention, 2011). Tier one instruction should be scientifically based (Reschly, 2014). Scientifically based instruction relies on student data and progress to inform instructional decisions. In this study, the majority of participants often used assessment data to offer different teaching and learning strategies.

This result points to teachers who are aware of the assessment outcomes of their students and can adjust instruction to fit student needs; however, 29% of respondents only sometimes used assessment data to offer different teaching and learning strategies. Assessments can provide information about students falling below benchmark and should be utilized as a resource in instructional differentiation (Hughes & Dexter, 2011; O'Donnell & Miller, 2011). The majority of respondents indicated that knowledge of student readiness was often used to offer different teaching and learning strategies, which shows sensitivity to student progress through formal or informal methods. However, some participants shared that knowledge of student readiness was only used sometimes to offer different teaching and learning strategies.

Scientifically based instruction also relies on knowledge of student language and culture in order to offer different teaching and learning strategies. In the present study, participants either shared that knowledge of student language and language skills was used all of the time or often to offer different teaching and learning strategies. This shows a focus on adapting instruction to meet the needs of student who are still acquiring a new language.

Forty three percent of respondents in this study shared that knowledge of student culture was sometimes used to offer different teaching and learning strategies. This result suggests that while these schools do consider student language proficiency when planning and implementing lessons, more emphasis could be put on recognizing and utilizing student culture.

UNIVERSAL SCREENING TO IDENTIFY AT-RISK STUDENTS

Universal screening occurs during tier one and continues throughout the year. These screeners should help RtI teams identify students who are at risk academically or

behaviorally (Hughes & Dexter, 2011; O'Donnell & Miller, 2011). There are currently no mandated criteria for students identified as "at-risk" (Hughes & Dexter, 2011), thus the large number of different tools for screenings is expected.

Universal screeners need to be valid, reliable, and accurate to identify students at risk. The majority of respondents stated that the validity, reliability, and accuracy of the screening tools were considered with great importance when choosing the screener, however, a large percentage, 43% of respondents, stated that validity, reliability and accuracy were only somewhat considered. This suggests that some of the universal screeners that were used may not have high rates of validity, reliability or accuracy.

All participants stated that every student was screened at the beginning of the school year. All participants indicated that universal screeners occur throughout the school year. These results match the proposed guidelines from the Texas Education Agency that recommend universal screeners for academics and behavior occur at least three times per school year (Zirkel & Thomas, 2010).

PROGRESS-MONITORING

Progress-monitoring should measure specific student growth and should occur frequently enough to accurately gauge progress (Reschly, 2014). The Texas Education Agency recommends that tier two be monitored weekly (Zirkel & Thomas, 2011). Results of this study concerning progress-monitoring suggests that although the majority of these schools monitor progress in accordance with the guidelines, there are still several schools where progress-monitoring occurs over longer time periods. Overall, the majority of schools studied here appear to be collecting weekly progress-monitoring data on students served in tier three.

Student movement between the tiers should be informed by the progress-monitoring data collected throughout the intervention. All respondents indicated that decisions about student response in both tier two and three interventions are based on progress-monitoring data. This means that decisions about student responsiveness are based on a comparison between student's expected learning and actual learning (Hughes & Dexter, 2011).

Progress-monitoring tools either were teacher made or made by a publisher in either an online or paper format. The use of so many different types of progress-monitoring tools indicates that there is not one standard consensus on the best method of progress-monitoring students.

Progress-monitoring tools should be valid, reliable, accurate and normed on a population similar to the school population because the results of these measures contribute to special education referrals for some students. Overall, participants' responses suggested that the validity and reliability information provided by a vendor were of importance to school staff. In addition, the majority of participants suggested confidence that the tools were used as intended and that the intervention providers were capable of administration according to vendor specification.

DATA-BASED DECISION MAKING

In this study, data-based decision-making "is data-driven and based on validated methods; involves a broad base of stakeholders; and is operationalized with clear, established decision rules (e.g., movement between levels or tiers, determination of appropriate instruction or interventions)" (National Center on Response to Intervention, 2011). When asked what data was used to inform decision-making, participants were allowed to choose more than one item as extremely important, very important, etc.

Therefore, some total percentages added to a sum greater than 100%. Participants described the most important data used to inform RtI decisions as progress-monitoring, current tier progress and universal screeners. If these pieces of data have been used with fidelity, then they represent key components in the RtI framework. Very important data, as described by participants, include teacher or specialist opinion and parent opinion. Somewhat important data, as described by participants, include student classroom grade, STAAR scores, classroom observations and parent opinion. Stakeholders involved in making decisions about student progression through the tiers should be knowledgeable about the child, the intervention and the progress made.

Finally, a majority of participants agreed or strongly agreed "consistent decision-making rules are used with all students". Consistent rules for decision-making help to create procedural safeguards, so that each student is assessed in a fair and representative manner. It is recommended by Reschly (2014) that exit criteria from upper tiers be established so students have the opportunities to move back down the tiers.

PERCENTAGE IN CAMPUS RTI TIERS

The results indicated that a low percentage of participants worked at schools where the appropriate percentages of students were served by tier one. A low percentage of students served only in tier one could be indicative of a lack of fidelity in tier one core instruction (Reschly, 2014). However, it is possible that participants misunderstood the wording of the question or were unable to provide the information based on district policy thereby affecting this low percentage. Thirty-three percent of the respondents matched the proposed percentages of 10 to 15% in tier two, and all outlying scores were lower than the proposed limits. This may indicate that the participants did not provide the correct information, did not understand the question or could not provide the information.

It should be noted that in several responses, the number of students reported in each tier did not add up to the total enrollment of the school. Also, one participant shared that their campus did not wish to disclose their population percentages. This may have contributed to what seems like missing data in the population percentages. Also, since special education is not always considered part of tier three, student percentages in special education had to be reported separately.

Maintaining the proposed number of students in tier two would ensure that there is not an overflow from poor instruction in tier one (Hill et al. 2012). An accurate percentage in this tier could also indicate that progress-monitoring is effective in showing response or nonresponse to intervention thereby allowing practitioners to exit students back to tier one or on to tier three (Fuchs & Fuchs, 2006). In some cases, the number of students in tier three was lower than the number of students in special education. This may indicate that the school does not consider special education as a part of tier three intervention.

IMPLICATIONS FOR PRACTICE

Although results from this study cannot be generalized outside of the participating campuses, information about their practices can inform other educators about RtI practices. Future schools can use the rubric adapted from the National Center on Response to Intervention rubric to assess the fidelity of their own campus RtI procedures. The National Center on Response to Intervention also has many resources for schools and districts to improve the implementation of RtI (National Center on Response to Intervention, 2011).

Results of this study showed that many participants were unsure of their campus procedures in regards to critical parts of the RtI framework. For example, an unsure

response in regards to the impact of tier two interventions on student success indicates that the participant is not knowledgeable about how students in this tier are assessed or determined responsive. Interventions in tiers two and three should be continually assessed for effectiveness. Stakeholders should be aware of how students are instructed and assessed in all tiers in order to make accurate decisions about student progress. This will help increase the ability to confirm a relationship between the intervention and student response (Hill et al., 2012).

General education teachers, special education teachers, paraprofessionals and other specialists are common stakeholders in the RtI decision-making process. The results of this study suggest that all of these stakeholders frequently implemented tier two and three interventions. These individuals are common stakeholders in the problem-solving model (Berkeley et al., 2009), and their training in delivering the intervention promotes fidelity of implementation. Unlike tier two results in this study, only 83% of respondents indicated that these tier three service providers were adequately trained, and 17% were unsure. Administrators and teachers responsible for tier three interventions should be well trained in the implementation of the intervention, as student need at this level is very great. If unsure about training of professionals, administrators should try to secure professional development with the district or outside sources in order to improve teacher quality as well as intervention fidelity. As stated earlier, The National Center on Response to Intervention provides many valuable resources.

Assessment data should be used to offer different teaching and learning strategies. Teachers who use this data are aware of the assessment outcomes of their students and can adjust instruction to fit student needs. Assessments can provide information about students falling below benchmark and should be utilized as a resource in instructional differentiation (Hughes & Dexter, 2011; O'Donnell & Miller, 2011). Knowledge of

student readiness should also be used to offer different teaching and learning strategies, as it shows sensitivity to student progress through formal or informal methods. If knowledge of student readiness was only sometimes or rarely to offer different teaching and learning strategies, this could be suggestive of teachers who are not sensitive to student progress or who do not frequently monitor student understanding either formally or informally.

LIMITATIONS

One limitation of the study was the low participant response rate. The intended participant pool was 200; however, there were only 15 respondents, and only 5 of those respondents completed the full survey. This may have occurred for a number of reasons such as survey length or nonparticipation in RtI. Therefore, the results of this study cannot be generalized to the overall population of Texas elementary schools. A second limitation is the possible misunderstanding of definitions or questions by participants. Because this was a remotely taken survey, participants could not get immediate clarifications to questions. This may have contributed to inaccurate answers, incomplete answers or incomplete surveys. Also, some participants were unable to provide some information based on district or campus policy thereby affecting data collection and survey completion.

A third limitation was lack of quality questions that could have improved data collection, and the inclusion of questions that gave repeated or similar data. For example, had the survey asked if students served in special education were included in tier three, percentages of students in tier three and special education could have potentially been reported together. This information would have helped to create a more accurate representation of the campus RtI framework. Also, the Texas Education Agency states

that tier two interventions should occur for at least 20 to 30 minutes per day in addition to tier one instruction (Zirkel & Thomas, 2010); however, the durations of the interventions were not reported in this study. This information could have shed light on how tier three was intensified at the campus level since no campuses increased intensity through smaller group sizes. Also, multiple questions asked about what tools were used to create universal screeners. By removing repetitive or vague questions, the survey would have been shorter in length, which could have potentially improved the response rate. A fourth limitation is the lack of a pilot survey. By implementing a pilot survey, data collection could have been refined and confusing or repetitive questions could have been removed.

Finally, it is important to remember that the Texas Education Agency only provides guidelines for schools implementing RtI, and the use of RtI is not mandatory in Texas (Zirkel & Thomas, 2011). Therefore, variability is expected, and the terminology and processes used to identify at risks students may vary between districts. This complicates the interpretation of results.

FUTURE RESEARCH DIRECTIONS

This study identified a lack of consensus concerning accuracy and consistency of tier three interventions. This lack of consensus on tier three accuracy and consistency along with the great variability in tier three as a whole signifies that future research needs to be conducted on school practices and implementation specifically related to tier three.

Also, it is possible that participants misunderstood the wording of questions or were unable to provide information related to some questions based on district or campus policy thereby affecting response rate and accuracy of data. In the future, this study might be better conducted in one-on-one interviews or focus groups within the school. This would help improve the authenticity and accuracy of data. Participants would have the

opportunity to ask follow up questions and receive clarification. It may also help to provide future participants with the information to be covered ahead of time so that they have the opportunity to gather the needed information before the data collection takes place. It may also be more beneficial to look at district data instead of campus level data in order to get more generalizable data with fewer participants.

Glossary

1. Response to Intervention (RtI): service delivery model designed to provide high quality classroom instruction to all students and to identify students at risk for academic or behavioral deficits through universal screeners and progress-monitoring.
2. Multiple levels of increasing instructional intensity: the multi-tiered system of instruction and assessment. "Tier" is used to refer "to the sequence in which interventions are introduced.
3. Universal screeners: brief tests administered to all students to eliminate students with no deficits in learning or instruction from consideration for tier two services.
4. Progress-monitoring: Progress is measured by comparing students' expected and actual rates of learning. Progress-monitoring should be sufficiently frequent and sensitive to match the degree of students' needs and the intensity of the intervention.
5. Empirically validated: instruction and assessment that is based on research and proven effective with populations similar to the campus demographic.

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